

Amendments to the Claims under Revised 37 C.F.R. § 1.121

Claim 1 (previously amended): An isolated nucleic acid molecule comprising a nucleotide sequence:

- (a) as set forth in SEQ ID NO: 4;
- (b) of the DNA insert in ATCC Deposit No. PTA-976;
- (c) encoding the polypeptide as set forth in SEQ ID NO: 5;
- (d) that hybridizes to the complement of the nucleotide sequence of any of (a) - (c) under hybridization conditions allowing no more than a 21% mismatch between the nucleotide sequences; or
- (e) complementary to the nucleotide sequence of any of (a) - (d).

Claim 2 (currently amended): An isolated nucleic acid molecule comprising:

- (a) a nucleotide sequence encoding a polypeptide which that is at least about 70 percent identical to the polypeptide as-set forth in SEQ ID NO: 5, wherein the encoded polypeptide, upon exposure to mammalian cells, causes is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;
- (b) a nucleotide sequence encoding an allelic variant of the nucleotide sequence as set forth in SEQ ID NO: 4, the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA-976, or the nucleotide sequence of (a);
- (c) a region of the nucleotide sequence of SEQ ID NO: 4, the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA-976, or the nucleotide sequence of (a)-or (b) encoding a polypeptide fragment of at least about 25 amino acid residues, wherein the polypeptide fragment, upon exposure to mammalian cells, causes is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein, or is antigenic;
- (d) c) a region of the nucleotide sequence of SEQ ID NO: 4, the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA-976, or the nucleotide sequence of any of either (a)-(c) or (b) comprising a fragment of at least about 16 nucleotides;

(e)(d) a nucleotide sequence that hybridizes to the complement of the nucleotide sequence of any of (a) - (d)(c) under hybridization conditions allowing no more than a 21% mismatch between the nucleotide sequences; or

(f)(e) a nucleotide sequence complementary to the nucleotide sequence of any of (a) - (e)(d).

Claim 3 (currently amended): An isolated nucleic acid molecule comprising a nucleotide sequence:

(a) encoding a polypeptide as set forth in SEQ ID NO: 5 with at least one conservative amino acid substitution, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;~~

(b) encoding a polypeptide as set forth in SEQ ID NO: 5 with at least one amino acid insertion, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;~~

(c) encoding a polypeptide as set forth in SEQ ID NO: 5 with at least one amino acid deletion, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;~~

(d) encoding a polypeptide as set forth in SEQ ID NO: 5 which has a C- and/or N-terminal truncation, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;~~

(e) encoding a polypeptide as set forth in SEQ ID NO: 5 with at least one modification that is a conservative amino acid substitution, an amino acid insertion, an amino acid deletion, C-terminal truncation, or N-terminal truncation, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;~~

- (f) of any of (a) - (e) comprising a fragment of at least about 16 nucleotides;
- (g) that hybridizes to the complement of the nucleotide sequence of any of (a) - (f) under hybridization conditions allowing no more than a 21% mismatch between the nucleotide sequences; or
- (h) complementary to the nucleotide sequence of any of (a) - (g).

Claim 4 (original): A vector comprising the nucleic acid molecule of any of Claims 1, 2, or 3.

Claim 5 (original): A host cell comprising the vector of Claim 4.

Claim 6 (original): The host cell of Claim 5 that is a eukaryotic cell.

Claim 7 (original): The host cell of Claim 5 that is a prokaryotic cell.

Claim 8 (original): A process of producing an IFN-L polypeptide comprising culturing the host cell of Claim 5 under suitable conditions to express the polypeptide, and optionally isolating the polypeptide from the culture.

Claim 9 (canceled)

Claim 10 (original): The process of Claim 8, wherein the nucleic acid molecule comprises promoter DNA other than the promoter DNA for the native IFN-L polypeptide operatively linked to the DNA encoding the IFN-L polypeptide.

Claim 11 (original): The isolated nucleic acid molecule according to Claim 2, wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTN, FASTA, BLASTA, BLASTX, BestFit, and the Smith-Waterman algorithm.

Claims 12-42 (canceled)

Claim 43 (original): A composition comprising a nucleic acid molecule of any of Claims 1, 2, or 3 and a pharmaceutically acceptable formulation agent.

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Claim 44 (original): The composition of Claim 43, wherein said nucleic acid molecule is contained in a viral vector.

Claim 45 (original): A viral vector comprising a nucleic acid molecule of any of Claims 1, 2, or 3.

Claim 46-56 (canceled)

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